

that provide for minimal or no secondary structure, structure which allows for optimal hybridization but low non-specific binding, equal or similar thermal stabilities, and optimal hybridization characteristics.

Please replace the paragraph on page 39, line 24 to page 40, line 4, with the following paragraph:

The stability of duplexes having 2'-substituted nucleotides versus duplexes without such modification was tested by examining the T_m of these complexes. 4 μ M each of 20-mer oligonucleotide (5'- ggt ggt tcc tcc tca gtc gg -3'; SEQ ID NO: 1) and its complement (5'- ccg act gag aag gaa cca cc -3'; SEQ ID NO: 2) were bound in a solution of 50 mM NaCl, 10 mM PO₄ buffer, pH 7.4. Each of the nucleotides of the oligonucleotide had the same 2' group. Following binding, the melting temperature was determined as described. (See L.L.Cummins *et al.*, Nucleic Acids Research 23:2019-2024 (1995).)

Remarks

The Office Action dated February 6, 2002 has been carefully reviewed and the forgoing amendments are made in response thereto. In view of these amendments and the following remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Applicant respectfully submits that no prohibited new matter has been introduced by the amendments. The amendments to the specification were necessary to correct a typographical error and add a sequence identifier. Applicant has also provided a sequence listing to comply with the rules for applications containing nucleic acid sequences under 37 C.F.R. 1.136(a).

Claims 6-17 have been rewritten as claims 25-27 and 18-23, as claims 9-17 were misnumbered when added as claims 6-14, these claims have been rewritten to correct any possible errors in claim dependencies. While written description support for the amended claims can be found throughout the specification, specific support for the amendments to claims 18 and 25 can be found on page 34, line 24, through page 35, line 15. Additional claims 24 and 28 directed to regeneration of the array for reuse in a subsequent experiment are supported by the specification on page 34, line 24 to page 35, line 15.

Summary of the Office Action dated February 6, 2002

1. Claims 6-14 submitted in a Preliminary Amendment on September 25, 2000 were misnumbered. The Examiner has renumbered these as claims 9-17.